Appln. No. 09/944,940
Amendment dated April 5, 2005

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Amendments to the Claims:

This Listing of Claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claims 1-18 (canceled).

19. (new) A data storage system including a service processor for controlling operation of the data storage system having a plurality of data storage areas, the service processor comprising:

a memory for storing performance requirement parameters concerning storage system performance for each of the plurality of data storage areas;

a system monitor coupled to the data storage system to monitor performance of data storage operations;

a processor coupled to the memory to receive the performance requirement parameters and coupled to the system monitor to receive information about the performance of data storage operations and compare them with each other, whereby the processor detects whether each of the plurality of data storage areas is functioning within the performance requirement parameters; and

a data migration device which migrates data stored in the data storage area where the performance of data storage operations does not satisfy the performance requirement parameters to a different data storage area.

20. (new) A system as in claim 19 wherein the data storage areas comprise hard disk drives.

21. (new) A system as in claim 19 wherein the performance related parameters include at least one of I/O accessibility, data transfer volume, disk free space rate, disk busy rate, data transfer speed, and amount of cache resident data.

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22. (new) A system as in claim 19 wherein the processor calculates an average of the performance related parameter per unit time and compares the average to the performance requirement parameters.

23. (new) The system of claim 19 wherein the data migration device stages data into a cache memory, creates a mirror disk, changes the data redundancy, and transfers data from one physical volume to another physical volume.

24. (new) A method for allocating data storage areas within a system including storage devices and a storage controller, the method comprising:

setting performance requirement parameters associated with each of a plurality of data storage areas for the storage controller;

monitoring access frequency of the data storage areas; and

reallocating data stored in a first data storage area when the access frequency does not satisfy the performance requirement parameters.

25. (new) The method of claim 24 further comprising:

charging a fee for the data storage, the fee being determined in accordance with the performance requirement parameters; and

reducing the charge if the performance requirement parameters are not satisfied, the reduction being made in accordance with a length of time the performance requirement parameters are not satisfied.

26. (new) The method of claim 24 wherein the step of reallocating data comprises:

staging the data into cache;

creating a mirror disk; and

transferring data from one physical volume to another physical volume.

27. (new) A method of managing a data storage system accessed via a network, wherein the system is comprised of a network connected server, and a data storage system connected to the server, the method comprising:

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receiving at least one performance requirement parameter indicative of system performance, wherein each performance requirement parameter received is associated with a particular data storage area;

checking actual storage performance by referring to the performance requirement parameter; and

migrating data stored in the data storage area if the actual storage performance does not satisfy the performance requirement parameter.